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September 21, 2015 ~~**MARCH 02, 2015**~~

LOCATION MAP






SHEET INDEX FOR 100% SUBMITTAL

BID DOCUMENT SET

ISSUED FOR BID AND CONSTRUCTION

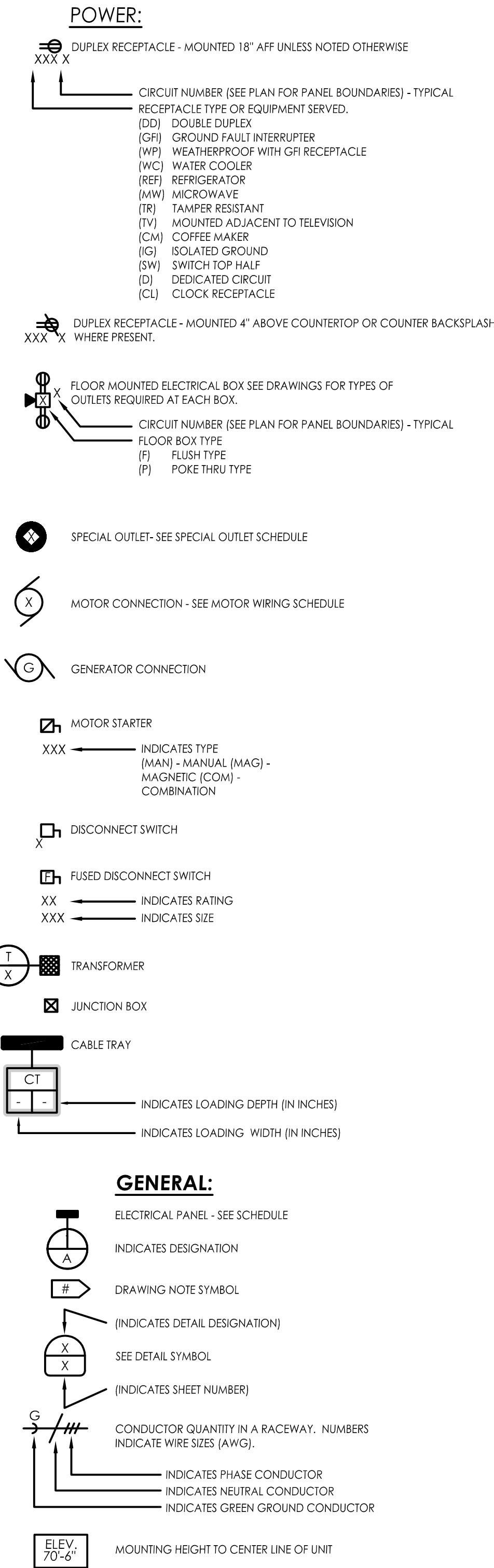


1. FLAT "WAFFLE BOTTOM FLAT PAD" CONCRETE PAD SHALL BE BY CONCAST FIBERCRETE OR APPROVE EQUAL.
SIZE: 13'-0"x 4'-4"
TOLERANCE: SHALL NOT EXCEED +/-1/8".
MANUFACTURE'S DESIGN DIMENSIONS AND WEIGHT MUST BE APPROVED BY ARCHITECT AND OWNER. PRIOR TO FABRICATION.
VERIFY SIZE OF THE OPENING IN THE CONCRETE BY THE EQUIPMENT MANUF.
THE FLAT PAD SHALL HAVE A RIGID, FLAT, AND STABLE TOP SURFACE.
IF REQUIRED, THE FLAT PAD SHALL BE MANUFACTURED WITH EQUIPMENT BOLT-DOWN ACCOMMODATIONS.
THE PRECAST COMPONENT ARE DESIGNED TO CONFORM TO REQUIREMENTS STATED IN ASTM C857-07 "PRACTICE FOR MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES."
THE PAD SHALL OBTAIN A MINIMUM COMPRESSIVE STRENGTH OF 7500 PSI AT 28 DAYS OF AGE.
STEEL REINFORCING WIRES SHALL CONFORM TO ASTM A496 AND A615.
THE PAD MUST NOT WARP, RUST, BE UV DEGRADABLE, OR SUSTAIN COMBUSTION.
REFER TO DETAIL 1/THIS SHEET FOR MORE INSTALLATION DETAIL.
2. PAD TOP FINISHES: CLEAR EPOXY SEALER.
3. CONTRACTOR RESPONSIBLE TO PROVIDE CONSTRUCTION BARRICADES AND TRAFFIC SIGNER.
4. REMOVE AND CAP EXISTING SPRINKLER HEAD DURING CONSTRUCTION PHASE. REPLACE SPRINKLER HEAD AND TEST PER MANUFACTURE REQUIREMENT .
5. CONTRACTOR TO VERIFY PROPER OPERATION OF EXISTING LOUVER AFTER EACH PHASE.

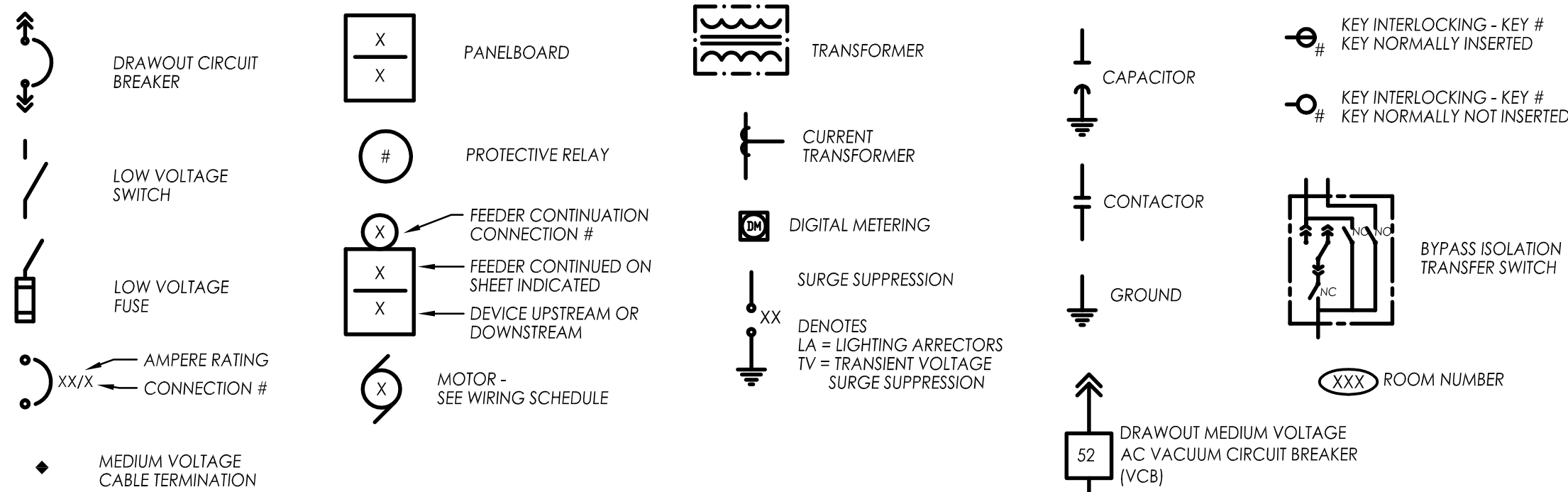
	-	SITE PLAN:		ENGINEERS + CONSULTANTS:  engineering consultants 316 N. Milwaukee St. Suite 202 Milwaukee, WI 53202 T: 414.273.1432 www.rtmassociates.com	ARCHITECTS + ENGINEERS:  BANCROFT ARCHITECTS + ENGINEERS www.bancroft-ae.com	Drawing Title TRANSFORMER FLOOR PLAN - NEW	Project Title CLEMENT J ZABLOCKI CHANGE TRANSFORMERS	Project Number #695-14-140	Office of Construction and Facilities Management		
	-					Bldg Number 111	Drawing Number A100				
	-					Location MILWAUKEE, WI					
	-							Date 06-24-2015		Checked MSP	Drawn MSP
	-										
	-							ISSUED FOR BID AND CONSTRUCTION 06/24/2015		100% SUBMITTAL 03/02/2015	95% SUBMITTAL 01/07/2015

SYMBOLS LIST:

MOUNTING HEIGHTS FOR DEVICES AND EQUIPMENT TO BE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE.



ONE LINE SYMBOLS:



FEEDER LEGEND:

- ALL ITEMS INDICATED BY A DARK SOLID LINE ARE NEW.
- ALL ITEMS INDICATED BY A LIGHT SOLID LINE ARE EXISTING TO REMAIN.
- ALL ITEMS INDICATED BY A DASHED LINE ARE EXISTING TO BE REMOVED.
- ALL ITEMS INDICATED BY A LIGHT DAS-DOT-DASH LINE INDICATE EQUIPMENT ENCLOSURES.
- ALL ITEMS INDICATED BY A LIGHT DASHED LINE INDICATE FUTURE EQUIPMENT AND WORK.
- ALL ITEMS INDICATED BY A DARK DASHED LINE INDICATE TEMPORARY EQUIPMENT AND WORK.

ANSI DEVICE FUNCTION NUMBER:

- 52 AC CIRCUIT BREAKER
- 63 RAPID PRESSURE RISE

ALARM & MONITOR POINTS LIST

LOCATION	POINT DESCRIPTION	GRAPHICS DDC (JCI)	POWER XPERT (EATON)	NO. OF POINTS
TRANSFORMER ROOM B0225	TRANSFORMER STATUS: LIQUID LEVEL, PRESSURE/VACUUM, COVER MOUNTED PRESSURE RELIEF DEVICE, WINDING TEMPERATURE AND RAPID PRESSURE RISE	X	X	5

- NOTES:**
- THE TRANSFORMER SHALL BE PROVIDED WITH THE DESCRIBED ALARM CONTACTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE SYSTEM TIED INTO THE EXISTING FACILITIES INFRASTRUCTURE.
 - THE CONTRACTOR SHALL PROVIDE ALL JCI EQUIPMENT, CONDUIT, JUNCTION BOXES, SUPPORTS, WIRING, WIRING CONNECTIONS, BUILDING AUTOMATION SYSTEM POINTS, PROGRAMMING AND TESTING REQUIRED FOR ALARM CONTACTS TO ANNUNCIATE IN THE GRAPHICS CENTER LOCATED IN BUILDING BUILDING 113.
 - THE CONTRACTOR SHALL PROVIDE ALL EATON EQUIPMENT, CONDUIT JUNCTION BOXES, SUPPORTS, WIRING, WIRING CONNECTIONS, GATEWAYS, SWITCHES, PROGRAMMING AND TESTING REQUIRED FOR ALARM CONTACTS TO ANNUNCIATE TO THE EXISTING EATON POWER EXPERT SYSTEM.
 - CATEGORY 5 ENHANCED UTP CABLE SHALL BE RUN IN CONDUIT FROM TRANSFORMER ROOM TO TELECOMMUNICATION ROOM FOR INTERGRATION OF POWER EXPERT MONITORING POINTS. CABLE SHALL MEET ANSI/EIA/TIA 568B 2-1 CAT 5e SPECIFICATIONS, 350MHz OR BETTER, NEMA LOW-LOSS EXTENDED FREQUENCY, PSUM CROSS TALK COMPLIANT.
 - THE CONTRACTOR SHALL PROVIDE A SOFTWARE UPDATE FOR THE MILWAUKEE VAS EXISTING EATON POWER EXPERT SYSTEM, TO ENSURE THAT IT IS RUNNING THE NEWEST SOFTWARE AVAILABLE.

IN THE CASE OF CONFLICTS OR DISCREPANCIES WITHIN OR AMONG THE CONTRACT DRAWINGS, THE BETTER QUALITY, MORE STRINGENT REQUIREMENTS OR GREATER QUANTITY OF WORK, AS DETERMINED BY THE GOVERNMENT, SHALL BE PROVIDED.

ABBREVIATIONS:

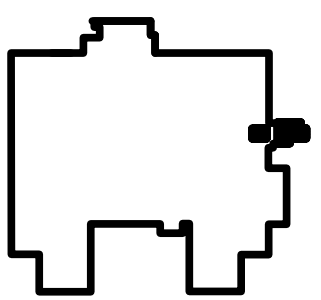
ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AVAILABLE INTERRUPTING CURRENT
A/E	ARCHITECT/ENGINEER
ALT	ALTERNATE
ALT SW	ALTERNATOR SWITCH
ARCH	ARCHITECT
ATS	AUTOMATIC TRANSFER SWITCH
BFG	BELOW FINIAL GRADE
BLDG	BUILDING
BPC	BOLTED PRESSURE CONTACT SWITCH
BKR	BREAKER
BOL	BUILT IN OVERLOAD
CATV	CABLE TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLG	CEILING
CP	CONTROL PANEL
CS	COMBINATION STARTER
CSB	CABLE SPICE BOX
CT	CURRENT TRANSFORMER
DE	DUAL ELEMENT FUSES
DIR	DIRECT
DISC	DISCONNECT
DN	DOWN
E	EXISTING
EC	ELECTRICAL CONTRACTOR
ELEV	ELEVATION REFERENCE
EM	EMERGENCY
ENT	ELECTRICAL NON-METALLIC TUBING
EMT	ELECTRIC METALLIC TUBING
EOL	END OF LINE RESISTOR
EP	EXPLOSION PROOF
ER	EXISTING TO BE REMOVED
ERL	EXISTING TO BE RELOCATED
ERLD	EXISTING RELOCATED
ETR	EXISTING TO REMAIN
EXIST	EXISTING
EWC	ELECTRIC WATER COOLER
F	FLUSH
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FDR	FEEDER
FIXT	FIXTURE
FLR	FLOOR
FLA	FULL LOAD AMPS
FLUOR	FLUORESCENT
FS	FLOW SWITCH
FVNR	FULL VOLTAGE NON-REVERSING
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GRC	GALVANIZED RIGID CONDUIT
GRD	GROUND
GYP	GYPSPUM BOARD
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO SWITCH
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HVAC	HEATING & VENTILATING - AIR CONDITIONING
HVC	HEATING VENTILATING CONTRACTOR
HW	HEAVYWALL
ID	INDIRECT
IL	INTERLOCK
IMC	INTERMEDIATE METAL CONDUIT
INC	INCANDESCENT
IU	IN UNIT
J-BOX	JUNCTION BOX
LG	LAY-IN GRID
LIT	LIGHTING
LV	LOW VOLTAGE
LVT	LINE VOLTAGE THERMOSTAT
MAG	MAGNETIC STARTER
MAN	MANUAL STARTER
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUGS ONLY
MSB	MAIN SWITCHBOARD
MTD	MOUNTED
NIC	NOT IN CONTRACT
NU	NEAR UNIT
OU	ON UNIT
P	POLE
PB	PUSHBUTTON
PEND	PENDANT
PC	PHOTO CONTROL
PE SW	PNEUMATIC SWITCH
PLBG	PLUMBING CONTRACTOR
PNL	PANEL
R	RELAY
RAI	REMAIN AS IS
RE/CKT	RECONNECT TO EXISTING CIRCUIT
RECEP	RECESS
RECEPT	RECEPTACLE
RM	ROOM
RVS	REDUCED VOLTAGE STARTING
S	SPLINE
SEL SW	SELECTOR SWITCH
SP SW	SPEED SWITCH
SURF	SURFACE SW SWITCH
TIME CLOCK	TIME CLOCK
TC	TEMPERATURE CONTROL PANEL
TCP	TEMPERATURE CONTROL CONTRACTO
TCC	TEMPERATURE CONTROL CONTRACTO
TS	TAMPER SWITCH
TYP	TYPICAL
UG	UNDERGROUND
UNIV	UNIVERSAL
USS	UNIT SUBSTATION
WP	WEATHERPROOF
XFMR	TRANSFORMER

SHEET INDEX:

E001.4	ELECTRICAL SYMBOLS AND ABBREVIATIONS
E101	PARTIAL SITE PLAN - ELECTRICAL
E102	PARTIAL BASEMENT FLOOR PLAN - ELECTRICAL
E101.4	TRANSFORMER VAULT FLOOR PLAN - XFMR 4
E701.4	PARTIAL ONELINE DIAGRAM - XFMR 4

DRAWINGS ISSUED FOR REFERENCE ONLY:
E102 TRANSFORMER VAULT FLOOR PLAN - FINAL TRANSFORMER LAYOUT
E702 PARTIAL ONELINE DIAGRAM

SITE PLAN:

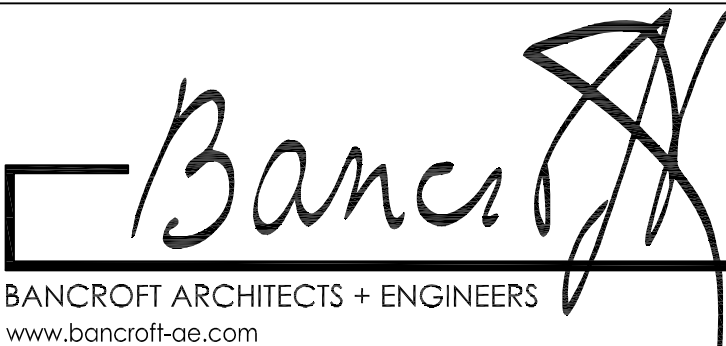


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Jesse Brown Design IDIG VA69D-14-C-0109
Bancroft-AE Project No. 14-101-002

Drawing Title
ELECTRICAL SYMBOLS & ABBREVIATIONS

Approved Project Director

Project Title
CLEMENT J ZABLOCKI
CHANGE TRANSFORMERS

Project Number
#695-14-140

Building Number
111

Location
MILWAUKEE, WI

Date
03-02-2015

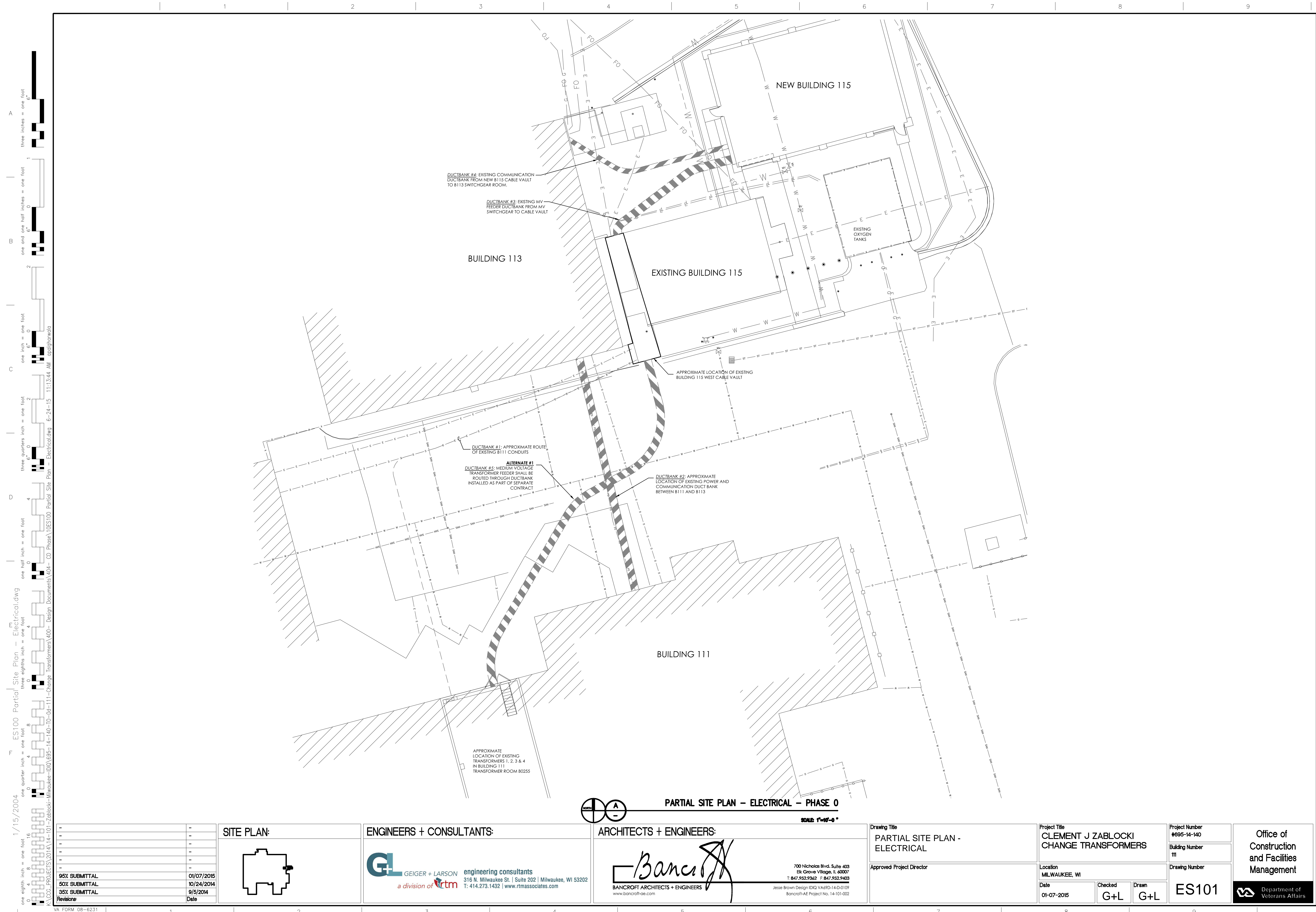
Checked
G+L

Drawn
G+L

Drawing Number
E001.4

Office of
Construction
and Facilities
Management





1/15/2004 ES100 Partial Site Plan - Electrical.dwg
one eighth inch = one foot
one quarter inch = one foot
one half inch = one foot
three eighths inch = one foot
one inch = one foot
three quarters inch = one foot
one and one half inches = one foot
two inches = one foot
three inches = one foot

95% SUBMITTAL	01/07/2015
50% SUBMITTAL	10/24/2014
35% SUBMITTAL	9/5/2014
Revisions	Date

SITE PLAN:

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Jesse Brown Design IDIQ V469D-14-D-0109
Bancroft-AE Project No. 14-101-002

Drawing Title

PARTIAL SITE PLAN - ELECTRICAL

Approved: Project Director

Project Title

CLEMENT J ZABLOCKI
CHANGE TRANSFORMERS

Location

MILWAUKEE, WI

Date

01-07-2015

Checked

G+L

Drawn

G+L

Project Number

#695-14-140

Building Number

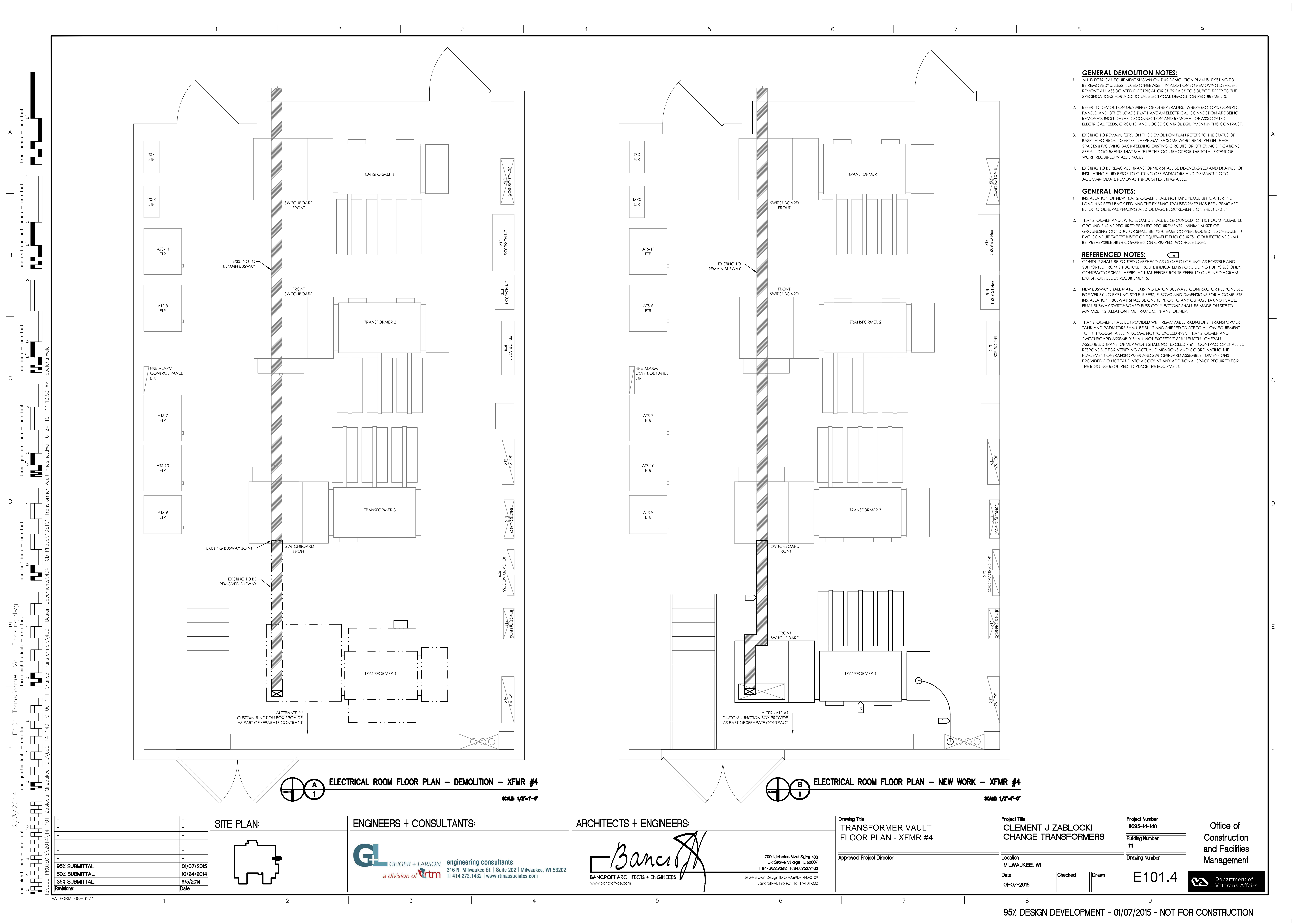
111

Drawing Number

ES101

Office of Construction and Facilities Management

Department of Veterans Affairs



- GENERAL DEMOLITION NOTES:**
- ALL ELECTRICAL EQUIPMENT SHOWN ON THIS DEMOLITION PLAN IS 'EXISTING TO BE REMOVED' UNLESS NOTED OTHERWISE. IN ADDITION TO REMOVING DEVICES, REMOVE ALL ASSOCIATED ELECTRICAL CIRCUITS BACK TO SOURCE. REFER TO THE SPECIFICATIONS FOR ADDITIONAL ELECTRICAL DEMOLITION REQUIREMENTS.
 - REFER TO DEMOLITION DRAWINGS OF OTHER TRADES. WHERE MOTORS, CONTROL PANELS, AND OTHER LOADS THAT HAVE AN ELECTRICAL CONNECTION ARE BEING REMOVED, INCLUDE THE DISCONNECTION AND REMOVAL OF ASSOCIATED ELECTRICAL FEEDS, CIRCUITS, AND LOOSE CONTROL EQUIPMENT IN THIS CONTRACT.
 - EXISTING TO REMAIN, 'ETR', ON THIS DEMOLITION PLAN REFERS TO THE STATUS OF BASIC ELECTRICAL DEVICES. THERE MAY BE SOME WORK REQUIRED IN THESE SPACES INVOLVING BACK-FEEDING EXISTING CIRCUITS OR OTHER MODIFICATIONS. SEE ALL DOCUMENTS THAT MAKE UP THIS CONTRACT FOR THE TOTAL EXTENT OF WORK REQUIRED IN ALL SPACES.
 - EXISTING TO BE REMOVED TRANSFORMER SHALL BE DE-ENERGIZED AND DRAINED OF INSULATING FLUID PRIOR TO CUTTING OFF RADIATORS AND DISMANTLING TO ACCOMMODATE REMOVAL THROUGH EXISTING AISLE.

- GENERAL NOTES:**
- INSTALLATION OF NEW TRANSFORMER SHALL NOT TAKE PLACE UNTIL AFTER THE LOAD HAS BEEN BACK FED AND THE EXISTING TRANSFORMER HAS BEEN REMOVED. REFER TO GENERAL PHASING AND OUTAGE REQUIREMENTS ON SHEET E701.4.
 - TRANSFORMER AND SWITCHBOARD SHALL BE GROUNDED TO THE ROOM PERIMETER GROUND BUS AS REQUIRED PER NEC REQUIREMENTS. MINIMUM SIZE OF GROUNDING CONDUCTOR SHALL BE #3/0 BARE COPPER, ROUTED IN SCHEDULE 40 PVC CONDUIT EXCEPT INSIDE OF EQUIPMENT ENCLOSURES. CONNECTIONS SHALL BE IRREVERSIBLE HIGH COMPRESSION CRIMPED TWO HOLE LUGS.

- REFERENCED NOTES:**
- CONDUIT SHALL BE ROUTED OVERHEAD AS CLOSE TO CEILING AS POSSIBLE AND SUPPORTED FROM STRUCTURE. ROUTE INDICATED IS FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL VERIFY ACTUAL FEEDER ROUTE. REFER TO ONLINE DIAGRAM E701.4 FOR FEEDER REQUIREMENTS.
 - NEW BUSWAY SHALL MATCH EXISTING EATON BUSWAY. CONTRACTOR RESPONSIBLE FOR VERIFYING EXISTING STYLE, RISERS, ELBOWS AND DIMENSIONS FOR A COMPLETE INSTALLATION. BUSWAY SHALL BE ON SITE PRIOR TO ANY OUTAGE TAKING PLACE. FINAL BUSWAY SWITCHBOARD BUSS CONNECTIONS SHALL BE MADE ON SITE TO MINIMIZE INSTALLATION TIME FRAME OF TRANSFORMER.
 - TRANSFORMER SHALL BE PROVIDED WITH REMOVABLE RADIATORS. TRANSFORMER TANK AND RADIATORS SHALL BE BUILT AND SHIPPED TO SITE TO ALLOW EQUIPMENT TO FIT THROUGH AISLE IN ROOM, NOT TO EXCEED 4'-2". TRANSFORMER AND SWITCHBOARD ASSEMBLY SHALL NOT EXCEED 12'-8" IN LENGTH. OVERALL ASSEMBLED TRANSFORMER WIDTH SHALL NOT EXCEED 7'-6". CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ACTUAL DIMENSIONS AND COORDINATING THE PLACEMENT OF TRANSFORMER AND SWITCHBOARD ASSEMBLY. DIMENSIONS PROVIDED DO NOT TAKE INTO ACCOUNT ANY ADDITIONAL SPACE REQUIRED FOR THE RIGGING REQUIRED TO PLACE THE EQUIPMENT.

ELECTRICAL ROOM FLOOR PLAN - DEMOLITION - XFMR #4
SCALE: 1/2"=1'-0"

ELECTRICAL ROOM FLOOR PLAN - NEW WORK - XFMR #4
SCALE: 1/2"=1'-0"

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95% SUBMITTAL	01/07/2015
50% SUBMITTAL	10/24/2014
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Revisions	Date

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Jesse Brown Design IDIQ VAA6PD-14-D-0109
Bancroft-AE Project No. 14-101-002

Drawing Title
TRANSFORMER VAULT
FLOOR PLAN - XFMR #4

Approved: Project Director

Project Title
CLEMENT J ZABLOCKI
CHANGE TRANSFORMERS

Location
MILWAUKEE, WI

Date
01-07-2015

Checked

Drawn

Project Number
#695-14-140

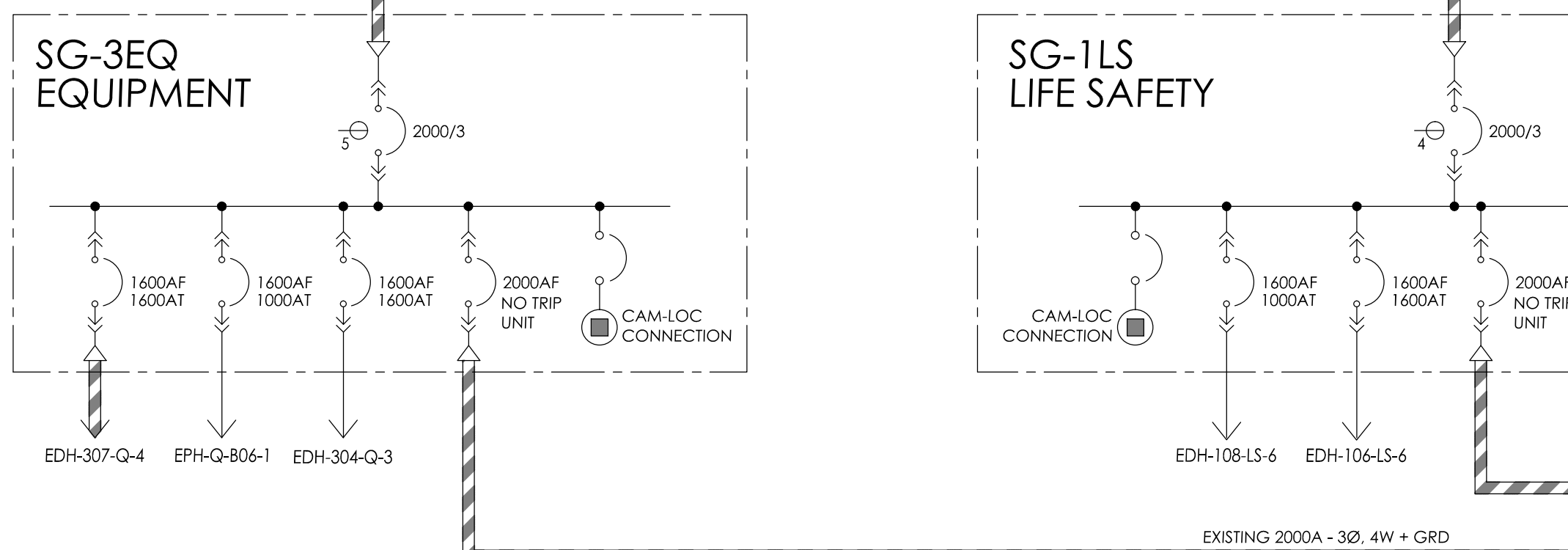
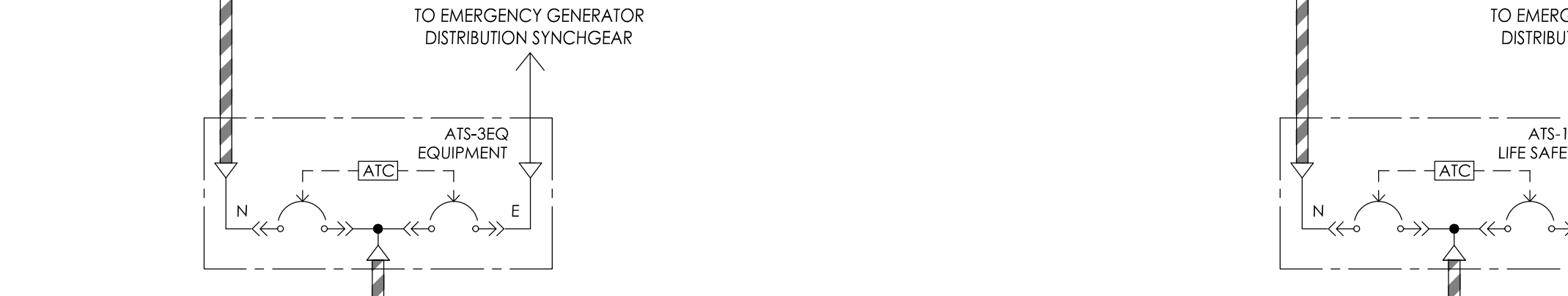
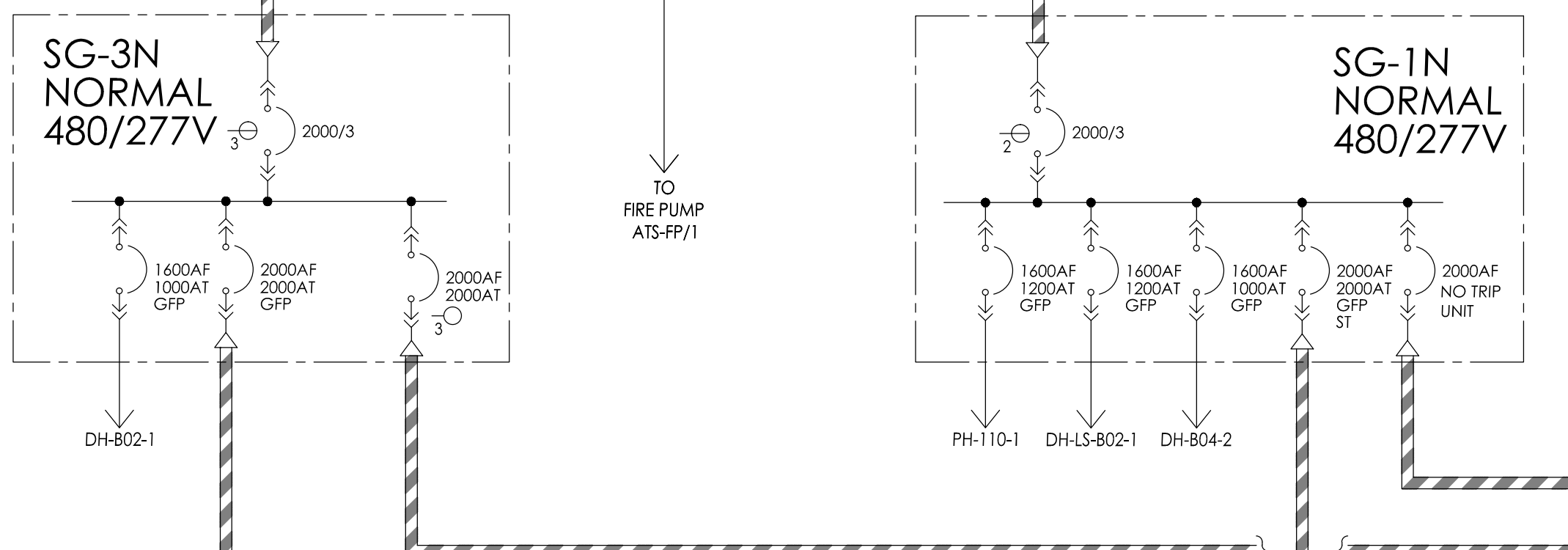
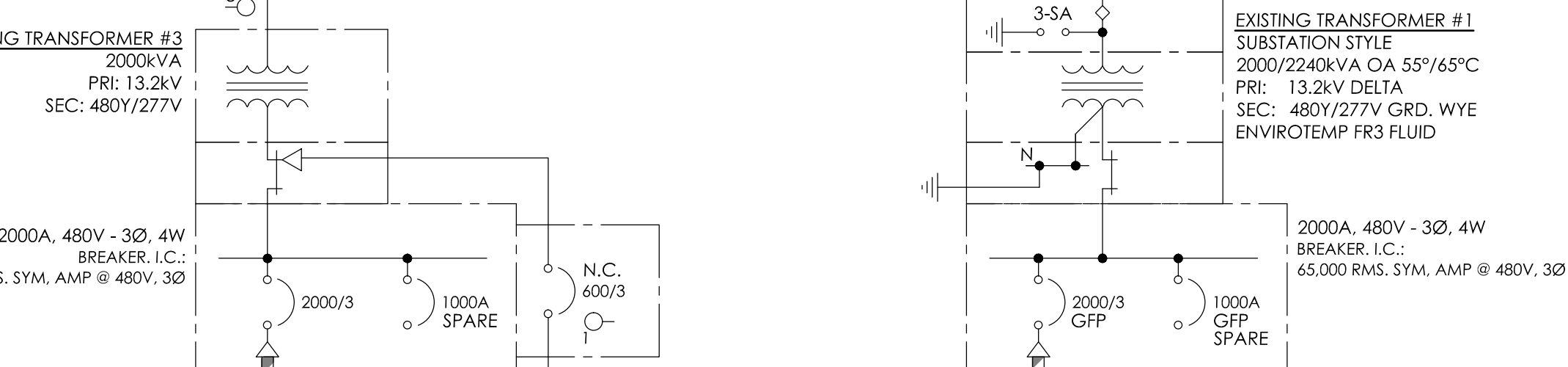
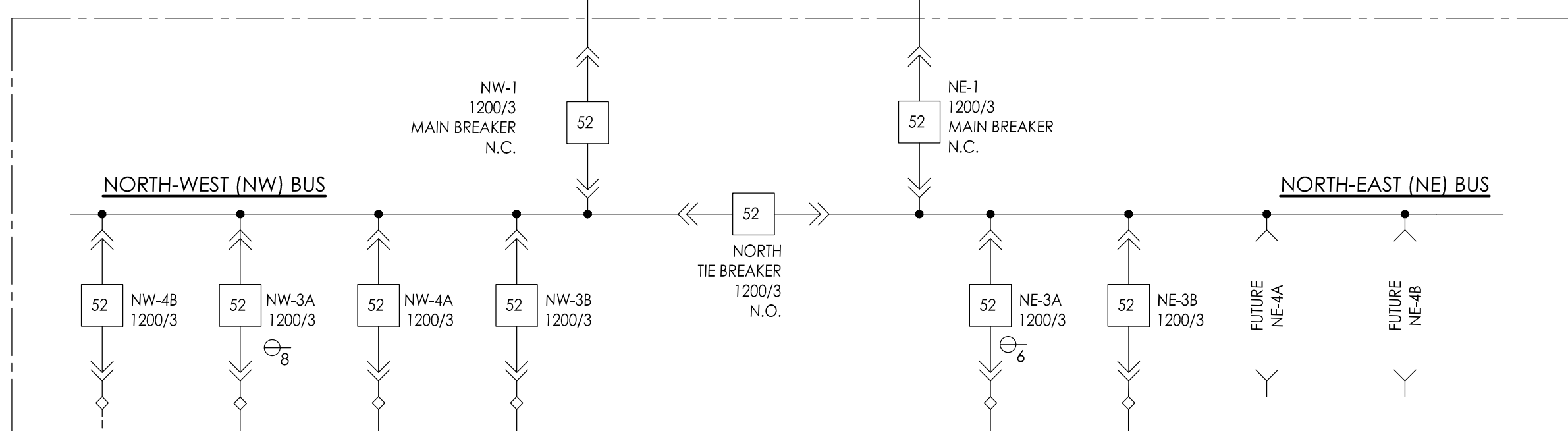
Building Number
111

Drawing Number
E101.4

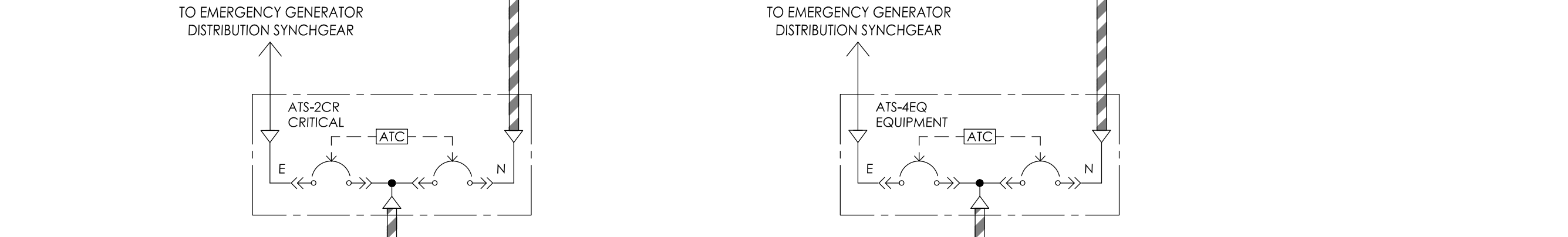
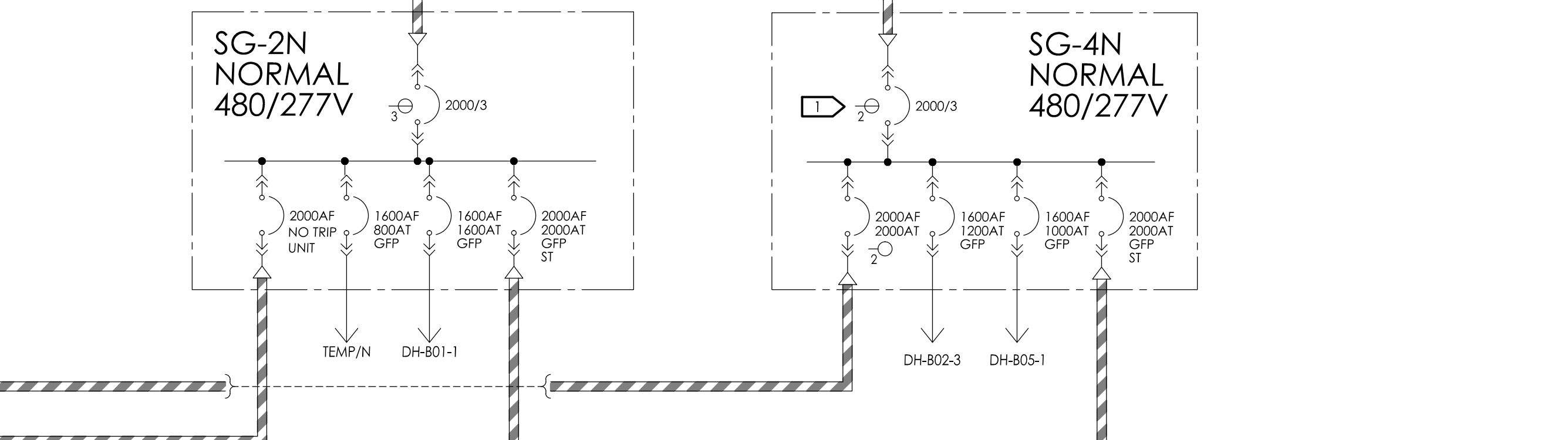
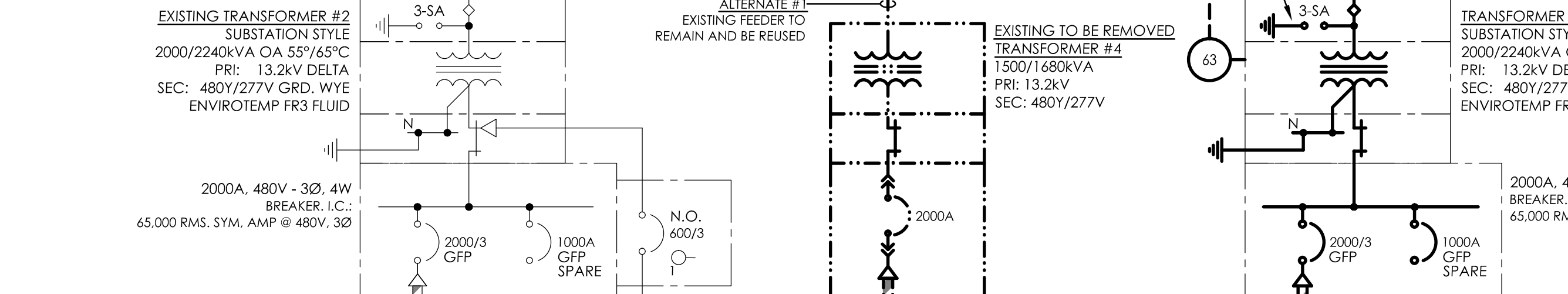
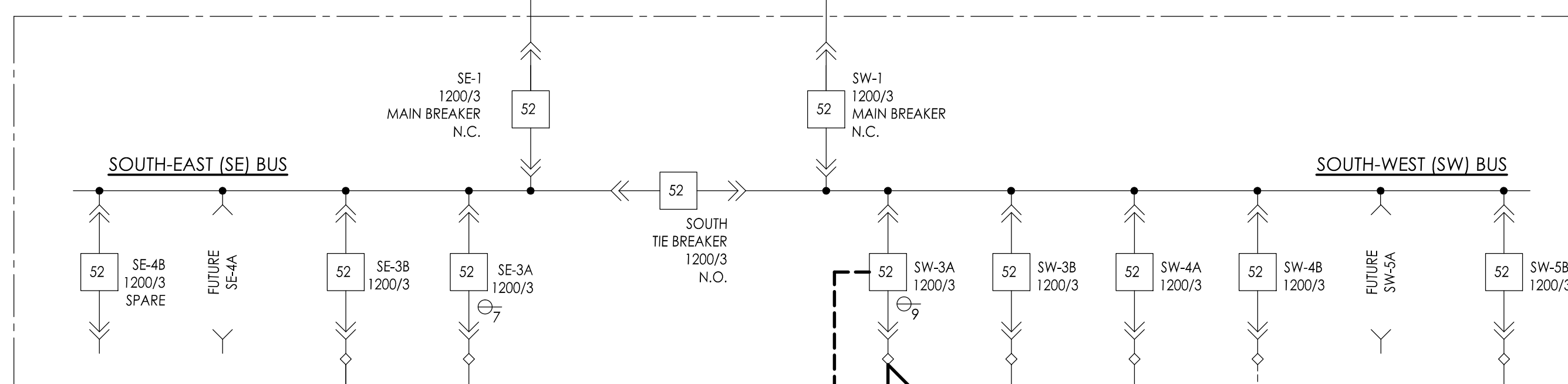
Office of Construction and Facilities Management

Department of Veterans Affairs

BUILDING 115
MV METAL-CLAD SWITCHGEAR
NORTH - LINEUP
13.2kV, 1200A, 3Ø, 3W, Cu



BUILDING 115
MV METAL-CLAD SWITCHGEAR
SOUTH - LINEUP
13.2kV, 1200A, 3Ø, 3W, Cu



GENERAL NOTES:

- INSTALLATION OF NEW TRANSFORMER SHALL NOT TAKE PLACE UNTIL AFTER THE LOAD HAS BEEN BACKFEED AND THE EXISTING TRANSFORMER HAS BEEN REMOVED.
- AIR TERMINAL CABINET ON THE PRIMARY SIDE OF THE TRANSFORMER SHALL BE KEY INTERLOCKED WITH UPSTREAM MV CIRCUIT BREAKER. TO PREVENT OPENING CABINET WHILE ENERGIZED.

REFERENCED NOTES:

- GROUND FAULT PROTECTION SHALL BE DISABLED ON MAIN CIRCUIT BREAKER.
- CONTROL WIRE FOR SUDDEN HIGH PRESSURE RELAY SWITCH SHALL BE ROUTED FROM TRANSFORMER ROOM TO BUILDING 115: THROUGH BUILDING 111, DUCTBANK #2, BUILDING 113 AND DUCTBANK #4. REFER TO SITE PLAN E5101 FOR REFERENCE.
- ALTERNATE #1 SHALL REUSE EXISTING MV FEEDER IN LIEU OF PROVIDING NEW MV FEEDER. PROVIDE NEW TERMINATIONS AS REQUIRED ON EXISTING FEEDER FOR CONNECTION TO NEW TRANSFORMER.
- PROVIDE (3) DISTRIBUTION CLASS, 10kV NOMINAL, 8.4kV MCOV, SURGE ARRESTERS.

GENERAL PHASING CONDITIONS:

- THE CONTRACTOR SHALL REVIEW THE INTENDED PHASING OF WORK AND ASSESS THE IMPACT ON CONSTRUCTABILITY, SAFETY CONCERNS, AND OUTAGE DURATIONS.
- THE CONTRACTOR SHALL IDENTIFY ANY SITE CONDITIONS OR DESIGN CONDITIONS WHICH MAY NEGATIVELY AFFECT PHASING AND ITS IMPACT. ANY CONCERNS SHALL BE COMMUNICATED IN WRITING AS A REQUEST FOR INFORMATION.
- THE CONTRACTOR SHALL NOT PERFORM ANY WORK ON ENERGIZED EQUIPMENT AND SHALL BE IN COMPLIANCE WITH NFPA 70E "ELECTRICAL SAFETY IN THE WORKPLACE".
- ALL ENERGIZED EQUIPMENT AFFECTING THE SAFE INSTALLATION OF CABLES AND CONNECTIONS SHALL BE SHUT-OFF, LOCKED-OUT AND TAGGED IN COMPLIANCE WITH NFPA 70E.
- ALL WORK REQUIRING SHUT-DOWN OF ENERGIZED EQUIPMENT SHALL BE PERFORMED IN MAXIMUM 4 HOUR OUTAGES.
- THE CONTRACTOR SHALL ATTEND A PLANNING MEETING WITH THE VA RESIDENT ENGINEER 10 WORKING DAYS IN ADVANCE OF EACH OUTAGE TO DISCUSS AND DOCUMENT THE FOLLOWING:
 - WHAT LOADS WILL BE AFFECTED BY THE OUTAGE.
 - THE ANTICIPATED LENGTH OF EACH OUTAGE.
 - ANY SPECIAL NEEDS FOR TEMPORARY POWER.
 - CONTINGENCY PLANS IF AN UNPLANNED OUTAGE WERE TO OCCUR AT THE SAME TIME AS THE PLANNED OUTAGE.
 - OTHER MAINTENANCE WORK BEING PERFORMED BY THE VA DURING THE OUTAGE AND ITS IMPACT ON THE OUTAGE DURATION.
 - REQUIREMENT FOR BARRIERS, SIGNAGE AND PUBLIC SAFETY.
 - THE CONTRACTOR SHALL ATTEND A FINAL PLANNING MEETING THE MORNING OF THE OUTAGE TO CONFIRM ALL ITEMS PREVIOUSLY DISCUSSED AND DETERMINE WHETHER ANY CORRECTIONS TO PREVIOUS DECISIONS ARE NECESSARY. CONTRACTOR SHALL NOTIFY OWNER OF ANY EXPECTED CHANGES AT THIS TIME.
 - THE CONTRACTOR SHALL ATTEND AN OUTAGE STATUS MEETING SCHEDULED BY THE VA JUST PRIOR TO THE OUTAGE TO DISCUSS COMMUNICATIONS AND AUTHORIZATIONS AND ANY OTHER SPECIAL NEEDS.
 - THE CONTRACTOR SHALL ASSUME ALL OUTAGES WILL OCCUR AT PREMIUM TIME DURING WEEKENDS AND EVENINGS.
 - OSHA CONFINED SPACE PROCEDURES SHALL BE FOLLOWED WHENEVER WORK IS OCCURRING IN CABLE VAULTS AND MANHOLES.
 - CONTRACTORS SHALL BE RESPONSIBLE FOR LOCK-OUT AND TAG-OUT PROCEDURES FOR THE WORK THEY PERFORM AND SHALL PARTICIPATE IN LOCK OUT AND TAG OUT OF WORK BEING PERFORMED BY THE VA OR WE-ENERGIES WHICH MAY IMPACT THE SAFETY OF THE CONTRACTOR'S EMPLOYEES.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND REMOVAL OF EXISTING EQUIPMENT AS SHOWN ON PLANS.

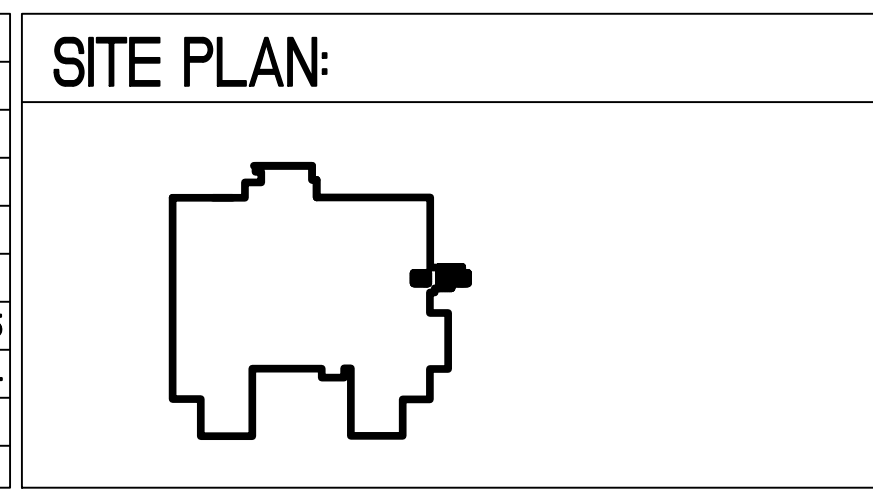
BUILDING 111 TRANSFORMER #4 OUTAGE

- CONTRACTOR SHALL ASSIST VA PERSONNEL IN PERFORMING PROCEDURE TO FEED SG-4N SWITCHGEAR THROUGH THE CIRCUIT BREAKERS, LOCATED IN SG-1N AND SG-4N. LOCK-OUT AND TAG-OUT MAIN CIRCUIT BREAKER IN SG-4N. REFER TO OUTAGE STEPS 1-3 IN CIRCUIT BREAKER POSITION CHART.
- OPEN AND RACK-OUT EXISTING FEEDER CIRCUIT BREAKER IN BUILDING 115, LOCK-OUT AND TAG-OUT. REFER TO OUTAGE STEP 4 IN CIRCUIT BREAKER POSITION CHART.
- REMOVE EXISTING 15 kV FEEDER FROM PRIMARY SIDE OF TRANSFORMER. TO THE EXISTING SWITCHGEAR IN BUILDING 115.
- REMOVE EXISTING TRANSFORMER #4 FROM BUILDING 111.
- PREP SITE FOR NEW TRANSFORMER INSTALLATION.
- PROVIDE NEW 15 kV FEEDER FROM PRIMARY SIDE OF TRANSFORMER, TO THE EXISTING SWITCHGEAR IN BUILDING 115.
- INSTALL NEW TRANSFORMER #4 AND ASSOCIATED EQUIPMENT.
- PERFORM ACCEPTANCE TEST ON NEW TRANSFORMER #4 AND NEW FEEDER.
- CLOSE EXISTING FEEDER CIRCUIT BREAKER IN BUILDING 115. REFER TO RESTORE STEP 1 IN CIRCUIT BREAKER POSITION CHART.
- PERFORM PROCEDURE TO RETURN SG-4N SWITCHGEAR TO NORMAL OPERATION. REFER TO RESTORE STEPS 2-4 IN CIRCUIT BREAKER POSITION CHART.

TRANSFORMER #4 CIRCUIT BREAKER POSITION CHART									LOAD CALCULATIONS	
15KV N-E BUS		15KV S-W BUS		480V SG-1N			480V SG-4N			
	NE-3A	SW-3A	MAIN	TIE	ATS	MAIN	TIE	ATS		
NORMAL	CLOSED	CLOSED	CLOSED	OPEN	CLOSED	CLOSED	OPEN	CLOSED	SG-1N = 533 A SG-4N = 697 A	
OUTAGE	PHASE 4	CLOSED	OPEN	CLOSED	CLOSE	CLOSED	OPEN	CLOSE	* LOAD REPRESENTS THE AVERAGE BETWEEN 9/16/2014 & 10/16/2014, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING LOAD PRIOR TO REPLACEMENT OF TRANSFORMER.	
	STEP #	N/A	4	N/A	3	N/A	2	1		N/A
	PHASE 4	CLOSED	CLOSE	CLOSED	OPEN	CLOSED	CLOSE	OPEN		CLOSED
	STEP #	N/A	1	N/A	2	N/A	3	4		N/A

PARTIAL ONELINE POWER DIAGRAM - XFMR 4
NO SCALE

95% SUBMITTAL	01/07/2015
50% SUBMITTAL	10/24/2014
35% SUBMITTAL	9/5/2014
Revisions	Date



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T: 847.952.7362 F: 847.952.9403
Jesse Brown Design IDIQ VAA69D-14-D-0109
Bancroft-AE Project No. 14-101-002

Drawing Title:
PARTIAL ONELINE DIAGRAM - XFMR 4

Approved: Project Director

Project Title:
CLEMENT J ZABLOCKI
CHANGE TRANSFORMERS

Project Number:
#695-14-140

Building Number:
111

Location:
MILWAUKEE, WI

Date:
01-07-2015

Checked:
G+L


Drawn:
G+L

Drawing Number:
E701.4


Office of Construction and Facilities Management
Department of Veterans Affairs



SITE PLAN:


A site plan diagram showing a building footprint. The building is roughly rectangular with several protrusions and indentations. A north arrow is located to the right of the building, pointing towards the top right of the page.

ARCHITECTS + ENGINEERS:

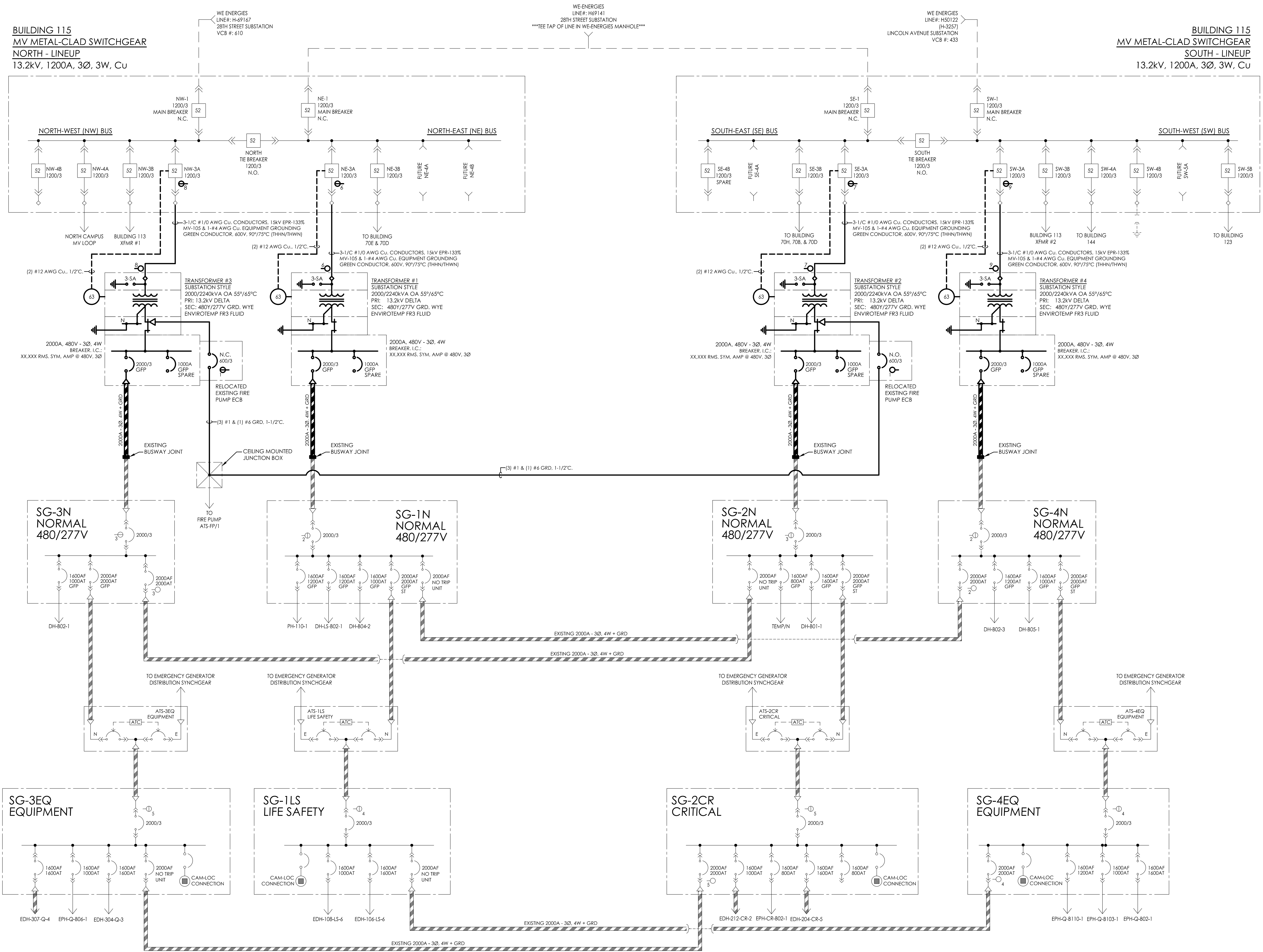
 **BANCROFT ARCHITECTS + ENGINEERS**
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Bancroft-AE Project No. 14-101-002

Project Title CLEMENT J ZABLOCKI CHANGE TRANSFORMERS		Project Number #695-14-140		Office of Construction and Facilities Management
Location MILWAUKEE, WI		Building Number 111		
Date 01-07-2015		Drawing Number E102		
Checked G+L		Drawn G+L		 Department of Veterans Affairs

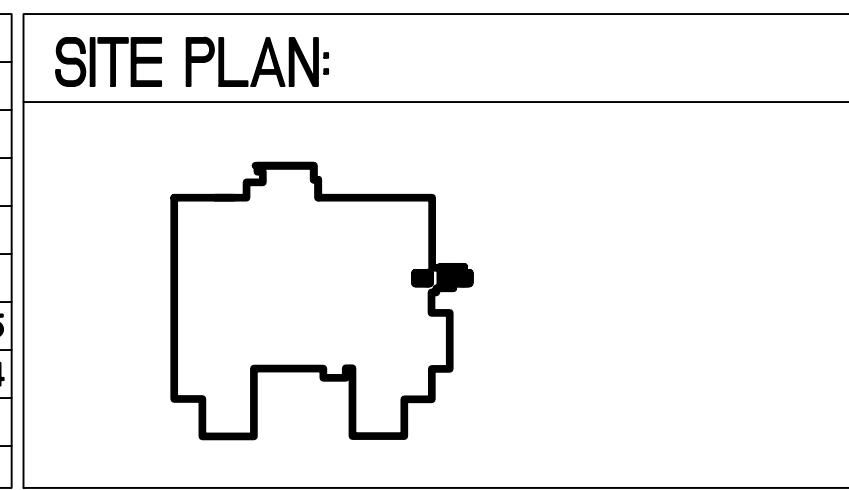
8/26/2014
E702 Partial Online Diagram - New Work.dwg
one eighth inch = one foot
one quarter inch = one foot
one half inch = one foot
three eighths inch = one foot
three quarters inch = one foot
one inch = one foot
one and one half inches = one foot
three inches = one foot
VA FORM 08-6231



PARTIAL ONELINE POWER DIAGRAM - NEW WORK
NO SCALE

DRAWING ISSUED FOR INFORMATION PURPOSES ONLY

95% SUBMITTAL	01/07/2015
50% SUBMITTAL	10/24/2014
35% SUBMITTAL	9/5/2014
Revisions:	Date



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Bancroft-AE Project No. 14-101-002

Drawing Title
PARTIAL ONELINE DIAGRAM

Approved Project Director

Project Title CLEMENT J ZABLOCKI CHANGE TRANSFORMERS	Project Number #695-14-140	Office of Construction and Facilities Management
Location MILWAUKEE, WI	Building Number 111	
Date 01-07-2015	Checked G+L	Drawing Number E702
Drawn G+L	Department of Veterans Affairs	